GJ The Geographical Journal



The Geographical Journal, Vol. 180, No. 3, September 2014, pp. 211–223, doi: 10.1111/geoj.12031

Geographical barriers to education law advice: access, communications and public legal services in England and Wales

ASH PATEL*+, NIGEL J BALMER*‡ AND MARISOL SMITH* *Formerly Legal Services Research Centre, Legal Services Commission, 102 Petty France, London SW1H 9AJ †Ministry of Justice, 102 Petty France, London, SW1H 9AJ ‡Faculty of Laws, University College London, London, WC1H 0EG E-mail: nigel.balmer@ucl.ac.uk This paper was accepted for publication in March 2013

In line with changes to the delivery of other public services, current reforms to publicly funded legal advice services within England and Wales seek to move services from traditional face-to-face settings to delivery predominantly over the telephone. Government justification for the policy has focused on greater equality of access. In contrast, criticisms have centred upon the inability of the telephone to address the needs of certain client groups or complex cases. Using administrative records collected by the Legal Services Commission on the use of education law advice services, this paper considers the extent to which telephone services overcome barriers caused by distance from advice sources, as well as their ability to deliver comparable service and achieve similar outcomes to face-to-face services. Clear evidence emerged that as distance increased between service users and their closest provider, so did the likelihood of using telephone advice. However, when looking at the nature of the service received and the outcome achieved for clients, there were notable differences, with face-to-face service users far more likely to achieve tangible outcomes. Few telephone cases moved beyond the initial stages of advice. Telephone services did mediate the impact of distance, although there were concerns over the comparability of the service delivered by the two modes. Despite this, the paper highlights the importance of going beyond simply measuring access in terms of utilisation alone, also measuring it in terms of the outcomes achieved.

KEY WORDS: access, legal advice, telephone, solicitors, distance, outcomes

Introduction

n recent years, there has been a concerted effort to harness new communication technologies and to deliver public services remotely, either over the telephone, the Internet or by email. Many of the principles driving this change were set in the Labour government's Modernising Government strategy (Cabinet Office 1999). The strategy sought to shape services to create 'new, efficient and convenient ways ... to communicate with government and to receive services' (Cabinet Office 1999, 45). The then Lord Chancellor's Department (now the Ministry of Justice) recognised that publicly funded legal services would not be excluded from the modernisation agenda (Lord Chancellor's Department 1999). Subsequent years witnessed the steady development of new delivery channels for legal information and advice. The Legal Services Commission (LSC) oversaw the establishment of the Community Legal Advice (CLA) telephone service, and advances in digital access to information through the Community Legal Advice (formerly JustAsk!) website. The transition to alternative channels was also seen more broadly across the not-forprofit advice sector, with the likes of Shelter, Citizens Advice, and the Money Advice Trust developing and expanding telephone and online services.

The recent publication of the *Legal Aid, Sentencing* and *Punishment of Offenders Act* (2012) (the Act) signalled the current coalition government's commitment to the development of a single telephone gateway for publicly funded civil legal advice, indicating a clear departure from the previous strategy which emphasised the need for channel plurality

The information, practices and views in this article are those of the author(s) and do not necessarily reflect the opinion of the Royal Geographical Society (with BG). © 2013 The Authors. The Geographical Journal © 2013 Royal Geographical Society (with the Institute of British Geographers) (Lord Chancellor's Department 2000; Varney 2006). Although proposals were modified following consultation, with the telephone gateway mandatory only for certain areas of law, there is an expectation that the gateway will, in all but limited exceptions (outlined in section 10 of the Act 2012) be expanded to other categories later (Ministry of Justice 2011a).

The political debate over telephone-based legal services

The Ministry of Justice has repeatedly emphasised that the move to a single telephone gateway improves accessibility and service uniformity irrespective of user location (Ministry of Justice 2010a). The ability of a telephone service to improve service access was highlighted by Jonathan Djanogly, Minister for Legal Aid. He stated: '[W]e see an effective telephone advisory service as a way of helping those who are in remote rural areas, those who are disabled and those who can't afford transport' (House of Commons Justice Committee 2011, 74).

The proposal for a mandatory telephone gateway has many detractors and has met with fierce resistance, exemplified by the strong opposition in response to the proposal (Ministry of Justice 2011a; see also Griffith and Burton 2011). Arguments concerning the telephone gateway were crystallised in House of Lords debates during the Act's legislative passage through Parliament. The passage of the Act was a tumultuous one, suffering a record 14 defeats in the Lords. One such defeat related to the proposed single telephone gateway, considered one of the more contentious aspects of the Act. Representing the Government in support of the Act, Lord McNally argued that:

The benefits of electronic services generally and the Community Legal Advice helpline service in particular are twofold. The first benefit is access. These services particularly help people with specific needs who find it difficult to get to face-to-face services; for example, those living in remote areas or who have a physical disability. Callers can access the Community Legal Advice helpline service at a time and place convenient to them. The second benefit is quality. Contrary to the assumption that face-toface advice is always better, specialist telephone advice providers are currently required to meet higher quality standards than their face-to-face counterparts.

House of Lords (2012, 14 March, col. 285)

While there was widespread acknowledgement that telephone services did offer advantages and were likely to benefit many, opponents were nonetheless vociferous in their criticisms of the proposal. On the issue of access Baroness Grey-Thompson expressed extreme concern 'that vulnerable people, with complex problems, will drop out of the system, even if they make it to the first phone call' (House of Lords 2012, 23 April, col. 1595). She argued further that finding the telephone gateway itself would be a problem for some and made a successful move at Third Reading to insert a new clause imposing on the Lord Chancellor a duty to provide those eligible for legal aid with the opportunity to access it in a variety of forms including the initial provision of face-to-face advice. This amendment was subsequently defeated in the House of Commons, a decision justified on the basis of the Government's financial privilege (House of Lords 2010–12).

Although given little emphasis in the public debate, the opportunity to reduce legal aid expenditure by shifting service provision to the telephone has been a key driver of the proposals. The Secretary of State for Justice was clear that the need to make substantial savings and to deliver better value for money were fundamental objectives of his 'root and branch reform of legal aid' (Ministry of Justice 2011a, 4). Estimates set out in the government's own impact assessment (Ministry of Justice 2010b) anticipated net savings of between £50 and £70 million per year (although these estimates were subsequently substantially reduced as a result of the decision to make the telephone gateway mandatory for only three categories of law). In pursuing these savings, the government highlighted that 'providing specialist advice by phone rather than faceto-face may save around 50 per cent per case on average' (Ministry of Justice 2011b, 6), clearly implying that the changes to the channel of delivery have undoubtedly been driven in part by the need to make financial savings.

Comparing face-to-face and telephone services

Work in the field of organisational communication has sought to determine a communication channel's relative capacity to convey complex information. Media richness theory, developed by Daft and Lengel (1986), provided a framework to determine a particular channel's capacity to exchange rich information based upon objective characteristics. Conventionally, face-to-face interactions were considered the richest form of communication, though the telephone was also considered a rich medium. More latterly, work in the field has developed to consider the influence experiential and perceptual traits possessed by an individual and their communicating partner have on their richness perceptions of a particular channel (Carlson and Zmud 1999; D'Urso and Rains 2008). Importantly, channel expansion theory suggests that individuals 'may simultaneously possess different richness perceptions for the same channel depending upon the context' (for example, while an individual may find the telephone a rich communication channel for catching up with friends and family, they may find it less efficient for other purposes, such as obtaining professional advice or managing their finances).

Nevertheless, the growth and societal acceptance of computer and mobile communications technology has led some to theorise the 'death of distance' due to the substitution of face-to-face interactions by remote channels (see for example Cairncross 2000; Negroponte 1995). As well as underplaying the unequal access and acceptance of telecommunication technology in all situations (Graham 1997; Graham and Marvin 1996), detractors of this hypothesis consider it too simplistic, suggesting it 'conflates spatial reach with social depth' (Morgan 2004, 5; see also Graham 1997). Basing arguments on Michael Polanyi's seminal work on the nature of knowledge and the fact that 'we know more than we can tell' (Polanyi 1983, 4) they argue that some types of knowledge are simply too person-embodied and context dependent to be detached from spatial influence (Morgan 2004), though that influence may be intangible as it is 'often indirect, subtle and varied' (Howells 2002, 874).

In the case of lawyers, the ability to decode nonverbal cues and a person's body language is one such type of knowledge that cannot be easily communicated. It is considered a valuable facet to the art of lawyering to gather information to best advise and support a client (Barkai 1990; Watson 1976). The implication is that interactions conducted in person may result in clients receiving better advice as this skill cannot be deployed over the telephone. Unfortunately, there has been little empirical research to support this supposition. Existing socio-legal research has usually been in the form of service evaluations (for example, Erlich et al. 2006; LSC 2004; Pearson and Davis 2002), none of which directly compare in-person and telephone advice, though recent work by the authors has begun to address this (Balmer *et al*. 2012).

The topic has also received relatively little attention outside of the socio-legal tradition. Even the health sector, with its long history of telephone-based medicine (Hallam 1989), provides only a limited body of empirical research comparing the two modes. The need for research to measure both the benefits and limits of telephone and face-to-face interactions to better organise services around patient and practitioner needs has not been unnoticed (Toon 2002).

Research from the health sector indicates that at least 50% of primary care consultations can be handled by telephone advice alone and that telephone services can reduce 'immediate' demand for face-to-face GP consultations (Bunn et al. 2004; Munro et al. 2005). In the legal advice field, Steele and Seargeant (1999) argued that the majority of civil law cases can similarly be dealt with over the telephone. Other immediately apparent benefits include satisfaction of service amongst users, convenience and time efficiencies (McKinstry et al. 2002 2010; Nagle et al. 1992). Telephone consultations have been shown to improve access and provide a safe alternative to face-to-face consultations for routine patient reviews, while reducing consultation durations and demand for in-person medical service (Pinnock et al. 2003; see also Wesson *et al.* 1992). The telephone has been employed with a relative degree of success in the administration of psychiatric therapy. Work by Lovell *et al.* (2006), looking at the use of cognitivebehavioural Therapy, found that treatment administered over the telephone and face-to-face resulted in similar outcomes in terms of clinical benefit and patient satisfaction amongst study participants.

However, serious questions remain about telephone-based services within a medical context, including the true efficiencies of the service due to higher re-consultation rates amongst remote service users (Bunn *et al.* 2004; McKinstry *et al.* 2002, Richards *et al.* 2002). Furthermore, doubts about the safety and efficacy of telephone consultations, principally stemming from the lack of examination, persist (Katz *et al.* 2008; McKinstry *et al.* 2009). Similar questions have been raised in the sphere of legal advice (Balmer *et al.* 2012).

Related to criticism voiced in the Lords in the context of legal services, concerns have also been raised about comprehension and understanding of the advice patients receive (Dale *et al.* 1997; Hansen and Hunskaar 2011; Leclerc *et al.* 2003). Research from Canada has demonstrated users from low income neighbourhoods are significantly less likely to act upon medical advice (De Coster *et al.* 2010). However, a recently completed controlled trial comparing face-to-face and telephone consultations found comparable levels of advice recall amongst patients (McKinstry *et al.* 2011).

Access, distance and mode of delivery

Access is often conceived as a general term for numerous barriers and facilitators to the use of a service (Aday and Andersen 1974). Penchansky and Thomas (1981) usefully consolidate these barriers and facilitators into five broad dimensions: availability, accessibility, affordability, acceptability and accommodation. Of these, affordability, acceptability and accommodation refer to non-geographic barriers such as those relating to social, economic, cultural, and behavioural factors (Field and Briggs 2001; Weber and Kwan 2003). Some barriers are, of course, geographic in nature (Khan 1992; Penchansky and Thomas 1981). However, it is recognised that these dimensions do not exist in a vacuum, and that inter-dependencies may (and almost certainly do) exist between them (see, for example, Brown and Garlick 2007; Cordasco et al. 2011; Hawthorne and Kwan 2011).

Studies into health geographics confirm a link between face-to-face health service utilisation and proximity to advice (for example, Haynes *et al.* 1999; McKee *et al.* 1990; Whitehouse 1985), though the friction of distance does not uniformly apply to different types of health services (Haynes *et al.* 1999). Turnbull *et al.* (2010 2011) have shown that the effectiveness of telephone services to overcome physical

The Geographical Journal 2014 180 211–223 doi: 10.1111/geoj.12031 © 2013 The Authors. The Geographical Journal © 2013 Royal Geographical Society (with the Institute of British Geographers)



© Crown copyright and database right (2013). All rights reserved. Ordnance Survey licence number 100041682

Figure 1 Location of Legal Services Commission contracted education suppliers and education related legal aid recipients in England and Wales for the year ending March 2010

barriers is dependent upon the type of service being offered. Respectively, the studies found that though the availability of an out-of-hours telephone service did not moderate the effect of distance on service take-up for young children, it did overcome some geographic barriers when looking at the overall study population.

Legal advice services are typically located in and around urbanised areas (Abel 1988; Foster 1973). This pattern is clearly evident in the distribution of the relatively few education law advice services (see Figure 1). Conventionally, it was believed the tendency towards situating advice services in urbanised areas led to an undersupply in rural areas (Royal Commission on Legal Services 1979) to the disadvantage of the people living in such communities (Blacksell *et al.* 1991). More recent work suggests that distance is not the detriment it once was due to the moderating effect of prevailing telecommunications technology (Patel *et al.* 2008), supporting findings from an early legal helpline pilot evaluation which reported a significant proportion of users electing to use the service due to distance, disability or mobility problems (Hobson and Jones 2004).

Despite this, inequalities in the use of telephone services persist for some populations. Indeed, it is important to draw a distinction between access and access inequality (Chapman et al. 2004). Policy interventions and service configurations designed to improve access may exacerbate access inequality for some (Christie and Fone 2003). For example, while NHS Direct expanded access to primary care services generally, it was noticeably underused by older people (Bibi et al. 2005; Foster et al. 2001; Munro et al. 2001; The Controller and Auditor General 2002). Access inequality may also manifest in unexpected ways. For example, Turnbull et al. (2010) found that in some circumstances the use of telephone services was, somewhat counter-intuitively, less likely to be used by rural populations, isolated from services. Specifically referring to legal advice, it has been shown that telephone-based housing advice was less likely to be used by young people and those with mental health problems (Balmer et al. 2012).

Accepting that moving services towards more remote modes of delivery may exacerbate difficulties for some, one cannot ignore their potential to overcome significant barriers. As Echols and Gordon (2003, 16) argue, criticisms that legal telephone services provide only 'partial' legal services in place of 'full-service representation' overlooks the primary purposes for setting up telephone services; to provide 'information, advice, and similar services to people who do not need full-service representation; and [provide] advice as a fall back to people who need but cannot be provided with full-service representation'. Implied within this argument is the trade-off between increasing access with the level of service being delivered.

Aims

This paper investigates whether telephone-based service overcomes geographic barriers while still delivering a service comparable to face-to-face provision. The research specifically explores the impact of distance between an advice seeker and advice source on the service ultimately received, and in so doing makes an important contribution to the limited evidence base that currently exists.

The paper focuses on education law, a relatively niche, but nonetheless specialised legal field (Lamb 2009). There are only a few locations where legal aid funded face-to-face education law advice can be obtained. In 2009 only 37 organisations in England and Wales could provide such services. In contrast, legal aid funded advice could be obtained from 368 debt advice organisation, 482 in housing and 2332 in family law. Similarly, there are comparatively few education disputes where legal aid is invoked. Data obtained from the LSC show that over the 1-year period ending March 2010, there were 4803 education disputes where a party received legal aid funded advice. During the same period, legal aid funded some 140 333 debt cases, 30 981 employmentrelated cases and 131 643 housing matters. Education law advice is also distinct from other areas as it is the only field of advice where services delivered over the telephone *currently* outnumber the cases delivered face to face. Given the sparse distribution of supply, analysis of education law presents an opportunity to examine whether and how distance impacts upon how advice is sought while at the same time providing a suitable volume of cases to compare the actual service offered by the two modes.

Methods

Client data

Client data for this paper are derived from LSC records and cover cases conducted under the Controlled Work Scheme during the 2009/10 financial year¹. The dataset contained records for 1522 education matters which were delivered under contract by solicitors and Not for Profit providers. Data fields included client postcode, case details such as case type, duration, outcome and advice time and information about the supplier used. Data included a mode variable, separating cases delivered face-to-face or over the telephone. It should be noted that while elements of a face-to-face case may be delivered over the telephone, a substantive face-to-face exchange would invariably occur (usually at the point of initial instruction); in contrast, advice in telephone cases can only be delivered via that mode.

While administrative systems also have the capability to collect client demographics they were not included within the analysis presented due to apparent inconsistencies in their collection. Demographics would usually be collected for the individual engaging with the advice provider. This would ordinarily be the party to the legal action, or, if the party to the legal action was a minor, the responsible adult. However, due to the nature of education problems, it was apparent that in some instances demographics were being collected for the child involved within the dispute. As it was not systematically possible to separate when demographics were been captured for the child or their parent/guardian, these variables were excluded from the analysis. Further, it has not been possible to match client records across the two modes of access or over multiple years. Accordingly it is not possible to investigate the extent to which clients cross refer across modes or compare re-consultation rates over time.

The types of cases were captured in the data by matter type labels specific to education law and comprising two parts, a part I category which reflects the most significant legal issue dealt with, and a part II category describing the educational body involved in the legal challenge. Overall, nine part 1 case types comprise the education law category. For the purposes of this study, only two of these were used; cases involving disability discrimination at nursery, school, and college or by a local education authority and cases involving special educational needs (SEN) provision. These are the only education law matter types that will remain in scope for publicly funded legal advice post reform (Ministry of Justice 2011a).

All case records also contained data on the stage reached in the case. This described the highest level of assistance provided to the client. There are four stagereached categories in the data, namely 'first meeting', 'further work', 'putting the case for the client', and 'representation at court or tribunal'². For the purposes of this paper, the latter two stages were merged into a single stage ('putting case for client/representation').

Case outcome

The administrative records also contain information regarding the outcome achieved for the client in all cases. Only one outcome is recorded for each case and providers are advised that if more than one applies, the one considered most significant for the client should be selected. Unfortunately, outcomes captured within administrative data are reflective of the situation at the point of case conclusion, inhibiting the ability to analyse long-term effects of the use of the alternative modes.

There are 17 possible outcome categories for education cases. These outcomes are further separated into two groups; concluded³ and non-concluded⁴. Overall, 1166 (76.6%) were concluded and the remainder non-concluded. Analysis pertaining to outcomes is limited to concluded matters only.

Concluded outcomes were further grouped into tangible and non-tangible outcomes. Tangible outcomes refer to those where the client has received a highly specified benefit, and non-tangible to those where the benefit is ambiguous. Despite the possible array of outcomes available, the majority of cases included in the analysis resulted in one of two outcomes. They are, 'opponent/other party action benefits client' (such as improved educational provision, or agreed school transport, etc.) which accounts for 93.8% of all cases that achieved a tangible result, and 'client advised and able to plan and/or manage their affairs better' (described as cases concluded with the client better able to plan or manage their own affairs in future as a result of the advice received) accounting for 84.4% of cases with non-tangible outcomes (the only other outcome coded as non-tangible was 'matter concluded otherwise'). Thus, the comparison between tangible and non-tangible case outcomes broadly compares the two detailed outcome types.

Supplier data

Supplier data were acquired from the LSC and relate to organisations awarded a Community Legal Services

(CLS) contract allowing them to provide specialist legal advice to eligible individuals through public funding (commonly referred to as legal aid). The CLS data contained information about solicitors and notfor-profit advisers providing face-to-face advice and assistance in education-related matters, as at November 2009. Overall, 37 organisations held a relevant contract, and a further eight locations were identified as permanent outreach locations. Location information, including postcodes, was provided for all suppliers.

Mapping

Both client and suppliers were assigned national grid references matching postcodes against the Royal Mail's Postcode Address File. Data were mapped using ArcGIS 10.0 and Euclidean distances were calculated between a client and their nearest face-to-face supplier. Figure 1 maps the distribution of legal aid recipients in relation to education matters, as well as the location of contracted education suppliers.

It is acknowledged that Euclidean distance may not be as sensitive as other measures such as drive time, although Euclidean distance and drive times are highly correlated (Jones *et al.* 2010). Its use here is appropriate as precision of travel time/distance is not central to the focus of the research question. In such instances the use of Euclidean distance measures are not likely to influence overall outcomes (Jones *et al.* 2010, Boscoe *et al.* 2012).

Analysis

First, a binary logistic regression model⁵ was used to test the influence of matter type (1 and 2) and distance to nearest supplier on mode of advice (telephone vs. face to face). Predictors were entered simultaneously in the model as main effects only. Each explanatory variable has a reference category, to which other categories are compared. For example, in the case of 'distance to nearest supplier', each distance category is compared with 'up to two miles' (the reference category). Reference categories can be identified by the fact that they have an estimate of zero and no standard error in the output tables. Positive estimates indicate an increase in the likelihood of using telephone rather than face-to-face advice compared with the reference category, while negative estimates indicate a decrease.

Second, three binary logistic regression models were fitted. The first explored the relationship between matter type (1 and 2) and mode of advice on whether or not the case resulted in a 'tangible outcome'. Second, stage reached was introduced to the model and third, a stage by mode of advice interaction was introduced. Multilevel models (Goldstein 2011) were used in order to correctly model the hierarchical structure of the dataset. In the current dataset, cases

Variable	Level	Estimate	SE	
Constant		-0.31	0.15	
Matter type 1	Special educational needs	0.00	_	
71	Disability discrimination act	0.41	0.25	
Matter type 2	School	0.00	_	
	Pupil referral unit	-1.51	0.75	
	Non-university college	-0.12	0.41	
	University	-0.75	0.43	
	Local authority	-1.87	0.14	
	Secretary of state/DFES/HEFC/LSC	-3.10	1.11	
	Other	-0.05	0.46	
Distance to nearest supplier	Up to 2 miles	0.00	_	
	2–5 miles	1.00	0.19	
	5–10 miles	1.44	0.23	
	10–20 miles	1.60	0.20	
	20–40 miles	2.32	0.20	
	40 miles or more	2.63	0.29	

 Table 1 Binary logistic regression model of the likelihood of telephone compared with face-to-face advice on the basis of matter type (1 and 2) and distance to nearest supplier

were nested within advisers and a random intercept model was fitted, allowing the probability of a tangible outcome to vary by adviser (i.e. acknowledging that certain advisers were more or less likely to deliver tangible outcomes). There are a number of consequences associated with not accounting for clustering, including underestimation of standard errors associated with regression coefficients (Rasbash et al. 2009a). Predictors were entered in the model as main effects, with the exception of the stage reached by mode of advice interaction term introduced in the third model, to explore to the extent to which variations in the likelihood of a tangible outcome by mode of advice might vary (or fail to vary) by stage reached. Estimates and standard errors can be interpreted in much the same way as for standard single-level logistic regression.

In all models, statistically significant findings (i.e. a *p*-value less than 0.05) are indicated in bold in the statistical output tables. All models were fitted using MLwiN (Rasbash *et al.* 2009b).

Results

Determinants of mode of advice

Overall, for 1522 education cases that would remain 'in scope' following the implementation of the legal aid reforms, clients received telephone advice for 867 (57.0%) and face-to-face advice for 655 (43.0%). The following model explores the impact of matter type (1 and 2) and distance to nearest supplier on mode of advice⁶. Table 1 shows binary logistic regression model output predicting mode of contact for education problems.



Figure 2 Percentage of clients seeking telephone as opposed to face-to-face advice by distance to the nearest specialist education supplier (simulated from the model in Table 1)

Importantly, there were large and highly significant differences in mode of advice by distance to respondent's nearest supplier (as shown in Table 1). Figure 2 shows the relationship between distance to supplier and use of telephone advice. Percentages and confidence intervals were produced by simulating from the model in Table 1 (using customised prediction within MLwiN). This allows other variables to be represented in proportions relative to their representation in the dataset as a whole. The use of telephone advice rises dramatically with distance, from only 27.4% using the telephone where advisers were up to two miles from their homes to 83.5% where they were over 40 miles away.

This is consistent with existing literature on service access (Haynes *et al.* 1999; McKee *et al.* 1990; Patel

Geographical barriers to education law advice

		Mode	1	Model 2		
Variable	Level	Estimate	SE	Estimate	SE	
Constant		0.34	0.22	-3.44	0.49	
Mode of advice	Face-to-face	0.00	_	0.00	_	
	Telephone	-1.34	0.29	0.59	0.43	
Matter type 1	Special educational needs	0.00	_	0.00	_	
<i>,</i> .	Disability discrimination act	-0.88	0.37	-0.38	0.50	
Matter type 2	School	0.00	_	0.00	_	
	Pupil referral unit	1.26	1.22	3.19	2.55	
	Non–university college	-1.76	1.09	-2.36	1.20	
	University	-1.17	0.90	-2.34	1.08	
	Local authority	0.76	0.17	0.16	0.20	
	Secretary of state/DfE	-0.37	1.10	-0.51	1.19	
	Other	-0.46	0.69	-0.76	0.83	
Stage reached	First meeting	_	_	0.00	_	
0	Further work	_	_	2.49	0.40	
	Putting case for client/Representation	_	_	4.72	0.41	
Provider level variance	-	0.55	0.25	1.28	0.50	

Table 2	Binary logi	stic regression	models of	the I	likelihood	of a	tangible	outcome	on th	e basis (of mode,	matter	type (1	
			and 2)	and	(for mode	l 2 o	nly) stage	e reached						

et al. 2008; Turnbull *et al.* 2011; Whitehouse 1985). It demonstrates that telephone services may overcome some of the difficulties in obtaining advice caused by distance. However, the significantly higher take-up of relatively nearby face-to-face advice indicates a strong preference for such services over the telephone.

Beyond distance from nearest adviser, the model also showed differences by case characteristics. Advice for Disability Discrimination Act (DDA) cases was more likely than special educational needs cases to be delivered by telephone, though this difference fell marginally short of statistical significance. For matter type 2, there were statistically significant differences, with percentages using telephone rather than face-to-face advice (simulated from the model), varying from 16.6% (for 'Secretary of State for Education/DFES/HEFC/LSC') to 74.6% [for 'school (including nursery)'. Compared to the reference category (school (including nursery)], 'pupil referral unit', 'local authority' and 'Secretary of State for Education/ DFES/HEFC/LSC' all had significant reductions in use of telephone advice. While it remains unclear why these differences appear, they demonstrate that channel selection is not only conditioned by distance, but also by other factors. Considering the existing literature, this finding is unsurprising (see, for example, Balmer et al. 2012; Haynes et al. 1999; Pearson and Davis 2002).

Mode of advice and tangible outcomes

Restricting analysis to concluded problems, the following analyses examine the relationship between mode of advice, matter type 1, matter type 2 and stage reached on whether or not respondents achieve a 'tangible' outcome. Statistical output is shown in Table 2. Two models were fitted, one with (model 2) and one without (model 1) stage reached, allowing the impact of introducing stage reached to the model to be assessed.

In model 1 (see Table 2), both matter type 1 and matter type 2 had some impact on whether or not a tangible outcome was attained. For matter type 1, tangible outcomes were significantly less likely for DDA cases compared with special educational needs. For matter type 2, tangible outcomes were particularly common for cases involving the pupil referral unit or local authority, especially when contrasted with cases involving universities and non-university colleges. There was also some evidence of significant clustering in outcomes by supplier (as shown by the significant supplier level variance term), suggesting some suppliers were more likely to produce tangible outcomes than others. Most importantly, however, telephone advice was significantly less likely to produce a tangible outcome compared with face-to-face advice. Simulating from model 1 in Table 2 (i.e. keeping other variables represented at proportions relative to their overall representation in the dataset) suggested a tangible outcome for 59.5% of face-to-face cases compared with only 31.3% of telephone cases.

In model 2, stage reached was also introduced, and was a key predictor of outcome, as shown in Table 2. In percentage terms, again simulated from the model, 'first meeting' resulted in a tangible outcome for 6.6% of cases compared with 35.6% for 'further work' and

76.1% for 'putting the case for the client/ representation'. The introduction of stage reached also had an impact on the relationship between other model variables and outcome. For matter type 1, DDA cases were no longer significantly less likely than special educational needs cases to achieve a tangible outcome, while for matter type 2, cases involving universities and non-university colleges became less likely still to attain a tangible outcome (though these were a small minority of cases). Crucially, having controlled for stage reached, the impact of mode on outcome was no longer statistically significant. Essentially, stage reached was a key predictor of outcome. The significant reduction in the likelihood of a tangible outcome for telephone advice observed in model 1 was a function of stage reached. Importantly, however, telephone advice was far less likely than face-to-face advice to progress through stages⁷. For face-to-face advice, 5.8% of cases progressed to 'first meeting', 16.2% to 'further work' and 78.0% to 'putting the case for the client or representation'. For telephone advice, figures were dramatically different with 62.3% reaching 'first meeting', 18.9% 'further work' and 18.8% 'putting the case for the client or representation'.

Discussion

Findings appear to show that telephone services can overcome barriers related to distance and also supports the argument that the current distribution of face-to-face advice provision exacerbates access inequalities. However, distance was not the only predictor of mode, with certain case types being significant determinants. Despite the narrowness of data available, this highlights that channel selection is based on more than accessibility and availability of services. Had client demographics been successfully captured, it would have been desirable to comment upon the extent to which channel adoption was driven by client characteristics (for instance, whether certain population groups tend towards specific modes).

Moving beyond channel selection, results do not support the case that telephone services currently deliver advice services akin to face to face. While there was indication of telephone services having the *capability* to deliver similar outcomes to conventional services, the relatively small proportion of cases progressing beyond initial stages of advice compared with face-to-face services denotes an unquestionable difference in the overall service being delivered.

Due to the narrow range of data analysed, explanations for the failure of telephone cases to progress to more advanced stages can only be postulated. First, the volume of cases ending at the initial stages of advice may be indicative of less complex, simpler cases tending towards telephone advice. The relationship between case type and mode suggests that clients make conscious decisions as to the most appropriate channel of advice based upon the nature of the problem before them. As part of this, decisions may partly be based upon perceived problem complexity. This fits with work by McKinstry et al. (2010, 301) which found that telephone consultations were more often employed for single issue and/or less complex problems (see also Hewitt et al. 2010; Patel et al. 2008) and compared with face-to-face health consultations, 'were shorter, presented fewer problems and included less data gathering and rapport building'. Further, McKinstry et al. (2010) go on to note that both practitioners as well as users have different expectations of alternative consultation modes, suggesting that practitioner perceptions of problems presented over the telephone may predispose them to underestimate actual case complexity.

Second, the lack of progression may be symptomatic of clients being unable to communicate effectively over the telephone, thereby underplaying the seriousness of their presenting problem. This is likely to affect certain population groups for whom communication may be difficult (George 2002; McKinstry and Sheikh 2006; Pearson and Davis 2002). Experience from the health field has shown that problems in communication and comprehension may be overcome by adjusting communication styles and developing skills to accommodate the absence of visual cues and physical examination (Curtis 2000; Pettinari and Jessop 2001), though a more recent study by Hewitt et al. (2010) found that despite the availability of guidance and training on telephone consultations, communication styles differed little between modes.

Third, this study compared alternative modes of delivery of specialist education law advice funded through the Community Legal Service provided by organisations under contract with the LSC. While this would suggest an equivalent service, asymmetries in the contracts for services may also explain differences in the respective channel caseload. One such asymmetry enables telephone-based services to provide up to two hours of advice before evidence of legal aid eligibility⁸ must be submitted by the client; in contrast, face-to-face contract holders would usually only commence work on a case once proof of a client's financial eligibility had been evidenced. The technical differences in the contract are necessary for practical reasons. Unlike face-to-face encounters which necessitate propinguity between a client and provider enabling the simultaneous exchange of documentation, the remoteness between parties of a telephone interaction are unable to benefit likewise, usually having to provide evidence through a free to client postal service.

The degree to which any, or all, of these factors explain the volumes of telephone cases not progressing beyond first meeting cannot be determined without further research. Considering these factors does nevertheless highlight the difficulty in

The Geographical Journal 2014 180 211–223 doi: 10.1111/geoj.12031 © 2013 The Authors. The Geographical Journal © 2013 Royal Geographical Society (with the Institute of British Geographers) comparing services that are considered to offer ostensibly similar assistance, albeit by differing modes of communication.

Conclusions and implications

This paper set out to understand whether distance from a face-to-face adviser influenced mode of access to specialist legal aid funded education advice, and to compare whether the services acquired through the respective channels were similar. In doing so, we sought to highlight the implications of the tandem effect of the increasing geographic centralisation of face-to-face services and expansion of telephone legal helplines. To date, few studies have sought to empirically compare telephone and face-to-face legal advice channels, and fewer still have compared the use of such services using any geospatial measures. A useful body of evidence which has independently compared the effect of geography on channel preference and the substance of services delivered in person or over the telephone has emerged from the health sector. However, the authors are not aware of any previous study that has attempted to understand the combined impact of distance and channel use on the service provided to the end user.

Though this study relied upon data concerning the use of education law, it provides valuable insight about the use of telephone and face-to-face services, particularly set against the backdrop of the growing trend towards more remote delivery mechanisms for both publicly and privately funded services.

Inevitably, reforms to the delivery of legal aid services are likely to lead to a significant restructure of the publicly funded advice sector. Further, the mandatory telephone gateway, designed to channel users away from face-to-face services in all but exceptional cases, will in time rebalance the delivery of the majority of legal aid services in favour of telephone-based services. There currently remains uncertainty as to the impact the reforms will have on the take-up of services, the distribution and continued availability of face-to-face provision or the nature of the service being delivered. One hypothesis is that the provision of face-to-face advice delivered from a fixed address will dramatically decline and become further concentrated in urban centres. The analysis presented here may highlight some of the consequential ramifications of the restructure, particularly for those who find themselves further removed from face-to-face advice points and for whom travel impudence effectively becomes a barrier to such advice.

Findings should also interest human geographers working in the field of access and accessibility as they affirm that viewing service utilisation, whether it is obtaining legal advice, consulting with a physician or purchasing goods and services, through the conventional prism of access, may no longer be sufficient where such exchanges are offered or augmented by multiple media (McLafferty 2003). Moreover they support the argument that access measures should be widened to encompass outcomes of service as well as service utilisation (Guagliardo 2004; Higgs 2004; McLafferty 2003). Despite being inherently problematic, geographers are increasingly employing techniques to more comprehensively examine access by combining spatial and non-spatial factors (see, for example, Forsyth et al. 2010; Hawthorne and Kwan 2011; Maroko et al. 2009). However, the challenge remains as to how to account for both the supposed omnipresent availability of services heralded by remote service delivery, and outcomes of service use in the complex that already makes up the concept of access? In addressing this, it becomes possible to definitively assess the implications distance and remoteness have on access inequality.

Acknowledgements

The authors are grateful to the editor of *The Geographical Journal*, and the anonymous referees for their time and valuable comments during the preparation of this article.

Disclaimer

The opinions expressed in this article are the authors' own and do not represent the views of the Legal Aid Agency or the Ministry of Justice.

Notes

- 1 Controlled Work includes the following legal aid schemes: Legal Help which provides initial advice and assistance, Help at Court which allows someone to speak for clients at a court hearing, and Family Help which provides help with negotiation and obtaining court orders in family disputes. It does not include Legal Representation for clients taking or defending court proceedings.
- 2 The stages are defined as: First Meeting, where no further work is undertaken beyond confirming instructions and giving advice; Further Work: work beyond the first meeting, including work preparatory to putting the case for the client; Putting the Case for the Client: includes correspondence with opposing party and pre-action protocol letters and any communication with the third party that involves substantively putting the case for the client, including preparation of representations and evidence for tribunals; Representation at Court/Tribunal: applies where representation before courts or tribunals has been provided or arranged.
- 3 Concluded case outcomes include: client receives damages, client receives new or increased periodical payment, client receives damages or property and new or increased periodical payments, sum owed by client is reduced or less than claimed, liability of client to make regular payments is reduced or less than claimed, opponent/other party action benefits client, opponent/other party action prevented, opponent/other party action delayed, client secures explanation or apology only,

client advised and able to plan and/or manage their affairs better, matter concluded otherwise.

- 4 Non-concluded case outcomes include: matter stopped on advisor's recommendation, matter proceeded under other CLS Funding, client referred to another organisation, client advised and taking action themselves or with the help of a third party, client advised and third party action or decision awaited, outcome not known/client ceased to give instructions.
- 5 Note, a multilevel model could also be fitted here, since cases are nested within supplier. Using a single level model assumes that clients make the choice to use the telephone or seek face-to-face advice independently of any choice of adviser (which is likely to be the case for the majority of clients). If clients were to choose advisers, with mode then driven by advisers, a multilevel model would be more appropriate (which was considered less likely). Readers interested in corresponding multilevel findings should contact the authors.
- 6 Stage reached was not included in the 'mode of contact' analysis. This decision was taken since the assumption was made that mode was chosen independently of any consideration regarding the stage that was likely to be reached upon the conclusion of the problem (which would only become clear well after choosing a mode and as a consequence of the advice received). However, if stage was considered a proxy for severity/intractability, and clients were making decisions on mode in light of this, its inclusion may be justified. As a consequence, we also refer to findings with stage reached included as endnotes throughout the 'mode of contact' analysis. Readers interested in the full statistical output having included stage should contact the authors.
- 7 A further model was also fitted to check whether there was any evidence of an interaction between mode of advice and stage reached in likelihood of a tangible outcome. However, there was no evidence of a significant interaction. Readers interested in this model should contact the authors.
- 8 Legal aid eligibility for education related cases is based upon the administration of a strict means and merits test. The latter relates to the merits of the case itself, while the former seeks to establish the financial situation of the legal aid applicant.

References

- Abel R L 1988 The legal profession in England and Wales Basil Blackwell, Oxford
- Aday A and Andersen R 1974 A framework for the study of access to medical care Health Services Research 9 208-20
- Balmer N J, Smith M, Denvir C and Patel A 2012 Just a phone call away: is telephone advice enough? Journal of Social Welfare and Family Law 34 63-85
- Barkai J L 1990 Nonverbal communication from the other side: speaking body language San Diego Law Review 27 101-25
- Bibi M, Attwell R W, Fairhurst R J and Powell S C 2005 Variation in the usage of NHS Direct by age, gender and deprivation level Journal of Environmental Health 4 63-8
- Blacksell M, Economides K and Watkins C 1991 Justice outside the city: access to legal services in rural Britain Scientific & Technical Longman, Harlow

- Boscoe F P, Henry K A and Zdeb M S 2012 A nationwide comparison of driving distance versus straight-line distance to hospitals Professional Geographer 64 188-96
- Brown G and Garlick P 2007 Changing geographies of access to medical education in London Health and Place 13 520-31
- Bunn F, Byrne G and Kendall S 2004 Telephone consultation and triage: effects on health care use and patient satisfaction Cochrane Database of Systemic Reviews (4) CD004180
- Cabinet Office 1999 Modernising government The Stationery Office, London
- Cairncross F 2000 The death of distance 2.0 Harvard Business Review Press, Boston
- Cordasco K M, Ponce N A, Gatchell M S, Traudt B and Escarce J J 2011 English language proficiency and geographical proximity to a safety net clinic as a predictor of health care access Journal of Immigrant Minority Health 13 260-7
- Carlson R and Zmud R 1999 Channel expansion theory and the experiential nature of media richness perceptions The Academy of Management 42 153-70
- Chapman J L, Zechal A, Carter Y H and Abbott S 2004 Systematic review of recent innovations in service provision to improve access to primary care British Journal of General Practice 54 374-81
- Christie S and Fone D 2003 Equity of access to tertiary hospitals in Wales: a travel time analysis Journal of Public Health Medicine 25 344-50 (http://jpubhealth.oxfordjournals.org/) Accessed 7 March 2012
- Curtis P 2000 The Telephone interview in Reisman A and Stevens D eds Telephone medicine: a guide for the practicing physician Mosby, Philadelphia 19-62
- Daft R and Lengel R 1986 Organization information requirements, media richness and structural design Management Science 32 554-71
- Dale J, Croch R, Patel A and Williams S 1997 Patients telephoning A&D for advice: a comparison of expectations and outcomes Journal of Accident and Emergency Medicine 14 21 - 3
- De Coster C, Quan H, Elford R, Li B, Mazzi L and Zimmer S 2010 Follow-through after calling a nurse telephone advice line: a population-based study Family Practice 27 271-8
- D'Urso S and Rains S 2008 Examining the scope of channel expansion: a test of channel expansion theory with new and traditional communication media Management Communication Quarterly 21 486-507
- Echols R and Gordon J 2003 Recommendations and thoughts from the managers of the hotline outcomes assessment study project Management Information Exchange Journal 9 9-18
- Erlich S, Lanier E and Davis L 2006 Legal hotline client outcome study 2006 - AARP foundation technical support for legal hotlines project AARP, Washington
- Field K S and Briggs D J 2001 Socio-economic and location determinants of accessibility and utilization of primary healthcare Health and Social Care in the Community 9 294-308
- Forsyth A, Lytle L and Riper D V 2010 Finding food: issues and challenges in using geographic information systems to measure food access Journal of Transport and Land Use 3 43-65
- Foster J, Dale J and Jessopp L 2001 A qualitative study of older people's views of out-of-hours services British Journal of General Practice 51 719-23

221

- Foster K 1973 The location of solicitors *The Modern Law Review* 36 153–66
- George S 2002 NHS Direct audited: customer satisfaction but at what price? *BMJ* 324 558–9
- Goldstein H 2011 Multilevel statistical models 4th ed Wiley, Chichester
- Graham S 1997 Telecommunications and the future of cities: debunking the myth *Cities* 14 21–9
- Graham S and Marvin S 1996 Telecommunications and the city: electronic spaces, urban place Routledge, London
- Griffith A and Burton M 2011 From face-to-face to telephone advice? *Legal Action* February
- Guagliardo M F 2004 Spatial accessibility of primary care: concepts, methods, and challenges *International Journal of Health Geographics* 3 3–15
- Hallam N 1989 You've got a lot to answer for, Mr Bell: a review of the use of the telephone in primary care *Family Practice* 6 47–57
- Hansen E H and Hunskaar S 2011 Understanding of and adherence to advice after telephone counselling by nurse: a survey among callers to a primary emergency out of hours service in Norway *Journal of Trauma Resuscitation and Emergency Medicine* 19 48–55 (www.sjtrem.com/content/19/1/48) Accessed 23 December 2011
- Hawthorne T L and Kwan M 2011 Using GIS and perceived distance to understand the unequal geographies of healthcare in lower-income urban neighbourhoods *The Geographical Journal* 178 18–30
- Haynes R, Bentham G, Lovett A and Gale S 1999 Effects of distances to hospital and GP surgery on hospital inpatient episodes, controlling for needs and provision *Social Science* and *Medicine* 49 425–33
- Hewitt H, Gafaranga J and McKinstry B 2010 Comparison of face-to-face and telephone consultations in primary care: qualitative analysis *British Journal of General Practice* 60 e201–212
- Higgs G 2004 A literature review of the use of GIS-based measures of access to health care services *Health Services and Outcomes Research Methodology* 5 119–39
- Hobson J and Jones P 2004 Telephone advice pilot in Legal Services Commission ed Improving access to advice in the community legal service: report on evaluation research on alternative methods of delivery Legal Services Commission, London 7–32
- House of Commons Justice Committee 2011 Government's proposed reform of legal aid Third report of session 2010–11 – volume 2 oral and written evidence HC 681-II The Stationery Office (www.publications.parliament.uk/pa/cm201011/ cmselect/cmjust/681/681ii.pdf) Accessed 7 January 2011
- House of Lords 2010–12 Legal Aid, Sentencing and Punishment of Offenders Bill: Commons disagreements, reasons, amendments in lieu and amendments to amendments in lieu of an amendment HL Bill (2010–12) 140 (www.publications .parliament.uk/pa/bills/lbill/2010-2012/0140/2012140.1-7.html) Accessed 1 February 2013
- House of Lords 2012 Hansard volume 736, 23 April (www .publications.parliament.uk/pa/ld201212/ldhansrd/index/ 120423.html) Accessed 6 June 2012
- Howells J 2002 Tacit knowledge, innovation and economic geography Urban Studies 39 871–84

- Jones S G, Ashby A J, Soyal R M and Naidoo A 2010 Spatial implications associated with Euclidean distance measurements and geographic centroid imputation in health care research *Health Services Research* 45 316–27
- Katz H P, Kaltsounis D, Halloran L and Mondor M 2008 Patient safety and telephone medicine *Journal of General Internal Medicine* 23 517–22
- Khan A A 1992 An integrated approach to measuring potential spatial access to health care services *Socio-economic Planning Science* 26 275–87
- Lamb B 2009 Lamb inquiry: special educational needs and parental confidence Department for Children, Schools and Families, London
- Leclerc B S, Dunnigan L, Cote H, Zunzunegui MV, Hagan L and Morin D 2003 Callers' ability to understand advice received from a telephone health-line service: comparison of selfreported and registered data *Health Services Research* 38 679– 710
- Legal Aid, Sentencing and Punishment of Offenders Act 2012 HMSO, London (www.legislation.gov.uk/ukpga/2012/10/ enacted) Accessed 28 June 2012
- Legal Services Commission (LSC) 2004 Improving access to advice in the community legal service: report on evaluation research on alternative methods of delivery Legal Services Commission, London
- Lord Chancellor's Department 1999 Civiljustice: resolving and avoiding disputes in the information age Lord Chancellor's Department Online (http://webarchive.nationalarchives .gov.uk/20050301193140/http://dca.gov.uk/consult/itstrat/ civindex.htm) Accessed 23 June 2011
- Lord Chancellor's Department 2000 Civiljustice2000: a vision of the civil justice system in the information age Lord Chancellor's Department, Online (http://webarchive .nationalarchives.gov.uk/20050301193140/http://dca.gov.uk/ cj2000/cj2000fr.htm) Accessed 23 June 2011
- Lovell K, Cox D, Haddock G, Jones C, Raines D, Garvey R, Roberts C and Hadley S 2006 Telephone administered cognitive behaviour therapy for treatment of obsessive compulsive disorder: randomised controlled non-inferiority trial *British Medical Journal* 333 883–6 (www.bmj.com/content/333/ 7574/883) Accessed 8 March 2012
- Maroko A R, Maantay J A, Sohler N L Grady K L and Arno P S 2009 The complexities of measuring access to parks and physical activity sites in New York City: a quantitative and qualitative approach International *Journal of Health Geographic* 8 34
- McKee C, Gleadhill D and Watson J 1990 Accident and emergency attendance rates: variation among patients from different general practices *British Journal of General Practice* 40 150–3
- McKinstry B, Hammersley V, Burton C, Pinnock H, Elton R, Dowell J, Sawdon N, Heaney D, Elwyn G and Sheikh A 2010 The quality, safety and content of telephone and face-to-face consultations: a comparative study *Quality and Safety in Health Care* 19 298–303
- McKinstry B and Sheikh A 2006 Unresolved questions in telephone consulting *Journal of the Royal Society of Medicine* 99 2–3
- McKinstry B, Walker J and Campbell C 2002 Telephone consultations to manage requests for same-day appointments: a

(with the Institute of British Geographers)

The Geographical Journal 2014 180 211–223 doi: 10.1111/geoj.12031 © 2013 The Authors. The Geographical Journal © 2013 Royal Geographical Society

randomised controlled trial in two practices British Journal of General Practice 52 306–10

- McKinstry B, Watson P, Elton R, Pinnock H, Heaney D and Sheikh A 2009 Telephone consulting in primary care: a triangulated qualitative study of patients and providers *British Journal of General Practice* 59 e209–18 (www.ncbi. nlm.nih.gov/pmc/articles/PMC2688070/pdf/bjgp59-e209.pdf) Accessed 22 December 2011
- McKinstry B, Watson P, Elton R, Pinnock H, Kidd G, Meyer B, Logie R and Sheikh A 2011 Comparison of the accuracy of patients' recall of the content of telephone and face-to-face consultations: an exploratory study *Postgraduate Medical Journal* 87 394–9
- McLafferty S L 2003 GIS and health care Annual Review of Public Health 24 25–42
- Ministry of Justice 2010a Proposals for the reform of legal aid in England and Wales Ministry of Justice, London. (http:// webarchive.nationalarchives.gov.uk/20111121205348; www.justice.gov.uk/downloads/consultations/legal-aid -reform-consultation.pdf) Accessed 28 June 2012
- Ministry of Justice 2010b Proposals for the reform of legal aid: provision of telephone advice impact assessment Ministry of Justice, London
- Ministry of Justice 2011a Reform of legal aid in England and Wales: the government response The Stationery Office, London (www.justice.gov.uk/downloads/consultations/legal -aid-reform-government-response.pdf) Accessed 28 June 2011
- Ministry of Justice 2011b Reform of legal aid in England and Wales: impact assessment – Annex D The Stationery Office, London (www.justice.gov.uk/downloads/consultations/annexd-telephone-advice.pdf) Accessed 28 June 2011
- Morgan K 2004 The exaggerated death of geography: learning, proximity and territorial innovation systems *Journal of Economic Geography* 4 3–21
- Munro J, Nicholl J, O'Cathain A, Knowles E, Morgan A and Dagnall A 2001 Evaluation of NHS Direct first wave sites: final report of the phase 1 research Medical Care Research Unit University of Sheffield, Sheffield
- Munro J, Sampson F and Nicholl J 2005 The impact of NHS Direct on the demand for out-of-hours primary and emergency care *British Journal of Ceneral Practice* 55 790–2
- Nagle J P, McMahon K, Barbour M and Allen D 1992 Evaluation of the use and usefulness of telephone consultations in one general practice *British Journal of General Practice* 42 190–3
- Negroponte N 1995 Being digital Coronet, London
- Patel A, Balmer N J and Pleasence P 2008 Geography of advice seeking *Geoforum* 39 2084–96
- **Pearson J and Davis L** 2002 The hotline outcomes assessment study final report – phase III: full-scale telephone survey Centre for Policy Research, Denver
- **Penchansky R and Thomas J W** 1981 The concept of access: definition and relationship to consumer satisfaction *Medical Care* 19 127–40

- Pettinari C J and Jessop L 2001 'Your ears become your eyes': managing the absence of visibility in NHS Direct Journal of Advanced Nursing 36 668–75
- Pinnock H, Bawden R, Proctor S, Wolfe S, Scullion J, Price D and Sheikh A 2003 Accessibility, acceptability, and effectiveness in primary care of routine telephone review of asthma: pragmatic, randomised controlled trial *British Medical Journal* 326 477–81
- Polanyi M 1983 The tacit dimension Peter Smith, Gloucester, MA
- Rasbash J, Charlton C, Browne W J, Healy M and Cameron B 2009a *MLwiN Version 21* Centre for Multilevel Modelling, University of Bristol, Bristol
- Rasbash J, Charlton C, Browne W J, Healy M and Cameron B 2009b A user's guide to MLwiN, v210 Centre for Multilevel Modelling, University of Bristol, Bristol
- Richards D A, Meakins J, Tawfik J, Godfrey L, Dutton E, Richardson G and Russell D 2002 Nurse telephone triage for same day appointments in general practice: multiple interrupted time series trial of effect on workload and costs *British Medical Journal* 325 1214–19
- Royal Commission on Legal Services 1979 Final report: Cmnd 7648 Her Majesty's Stationery Office, London
- Steele J and Seargeant J 1999 Access to legal services: the contribution of alternative approaches Policy Studies Institute, London
- The Controller and Auditor General 2002 NHS Direct in England The Stationery Office, London. (www.nao.org.uk//idocashx? docId=00b74cfc-8e1d-4d99-897d-e7412fe0f352&version=-1) Accessed 9 February 2012
- Toon P 2002 Using telephones in primary care British Medical Journal 324 1230–1
- Turnbull J, Pope C, Martin D and Lattimer V 2010 Do telephones overcome geographical barriers to general practice out-of-hours services? Mixed methods study of parents with young children *Journal of Health Services and Research Policy* 15 21–7
- Turnbull J, Pope J, Martin D, and Lattimer V 2011 Management of out-of-hours calls by a general practice cooperative: a geographical analysis of telephone access and consultation *Family Practice* 28 677–82
- Varney D 2006 Service transformation: a better service for citizens and businesses, a better deal for the taxpayer The Stationery Office, Norwich
- Watson A 1976 The lawyer in the interviewing and counselling process Bobbs-Merrill, Indianapolis, IN
- Weber J and Kwan M-P 2003 Individual accessibility revisited: implications for geographical analysis in the twenty-first century *Geographical Analysis* 35 341–53
- Wesson J, Guyatt G H, Whaley C, Sauvigne A, Baribeau P and Welch H G 1992 Telephone care as a substitute for routine clinic follow-up *Journal of the American Medical Association* 267 1788–93
- Whitehouse C R 1985 Effect of distance from surgery on consultation rates in an urban practice *British Medical Journal* 290 359–62

Copyright of Geographical Journal is the property of Wiley-Blackwell and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.